

Claims

1. A terminal for a communication system, the terminal comprising a first detector arrangement and a second detector arrangement, said first and second detector arrangements being based on different principles of detecting a contact between at least one surface of the terminal and the skin of the user of the terminal, wherein at least one function of the terminal is controlled based on signals from the first and second detector arrangements.

2. A terminal according to claim 1, wherein a control operation is provided only if said first and second detector arrangements both output a signal that indicates a contact between the terminal and the skin of the user.

3. A terminal according to claim 1 comprising a controller for controlling said at least one function of the terminal.

4. A terminal according to claim 1, wherein switching between different modes of operation of the terminal is arranged to be triggered based on signals from the detector arrangements.

5. A terminal according to claim 4, wherein the terminal is switched between a standby mode and an active mode.

6. A terminal according to claim 1, wherein a keypad lock of the terminal is operated based on signals from the detector arrangements.

7. A terminal according to claim 1, wherein the operation of a display of the terminal is controlled based on signals from the detector arrangements.

8. A terminal according to claim 1, wherein the operation of an alarm producing means is controlled based on signals from the detector arrangements.

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9. A terminal according to claim 1, wherein the detector arrangements are arranged to sense a contact between the terminal and the hand of the user.

10 10. A terminal according to claim 1, wherein the detector arrangements are arranged to sense a contact between the terminal and the cheek and/or ear of the user.

11. A terminal according to claim 1, wherein one of the
15 detector arrangements comprises a galvanic skin response detection arrangement.

12. A terminal according to claim 11, wherein the galvanic skin response detection arrangement is adapted to detect a
20 gripping pressure caused by the hand of the user of the terminal.

13. A terminal according to claim 1, wherein one of the detector arrangements is arranged to detect a pressure caused
25 by the hand of the user.

14. A terminal according to claim 13, wherein a predefined pressure pattern is arranged to be detected.

30 15. A terminal according to claim 1, wherein one of the detector arrangements comprises a capacitive proximity sensor.

16. A terminal according to claim 15, wherein the capacitive proximity sensor is placed on the inner surface of a cover of the terminal or an accessory thereof.

5 17. A terminal according to claim 1, wherein at least a part of at least one detector arrangement is provided in a detachable part of the terminal.

10 18. A terminal according to claim 1, wherein at least one of the detector arrangements is integrated in the cover material of the terminal.

15 19. A terminal according to claim 1, wherein at least one of the detector arrangements comprises at least three sensor elements, said at least three sensor elements being arranged in an array on the surface of the terminal.

20 20. A terminal according to claim 1, wherein the control of the function is based on adaptive use of the information provided by the signals from the detector arrangements.

21. A terminal according to claim 1, wherein the sensitivity of at least one of the detector arrangements is adjustable.

25 22. A terminal according to claim 3, wherein the controller is adjustable so that the controller provides different control instructions for the function controlled by the controller depending on the settings of the controller.

30 23. A terminal according to claim 1, wherein the control of the function is based, in addition to signals from the detector arrangements, on at least one of the following: the operational status of the terminal; the location of the

terminal; the time of the day; the time of the year;
temperature; the type of the communication.

24. A terminal according to claim 1, wherein at least one of
5 the detector arrangements is provided in a handset or headset
of the terminal.

25. A terminal according to claim 1, wherein the terminal
comprises a mobile station of a radio communication system.

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26. A detector arrangement for a terminal of a communication
system, the terminal comprising at least one element that is
to be held against the skin of the user of the terminal, the
detector arrangement comprising a first detector arrangement
15 and a second detector arrangement, said first and second
detector arrangements being based on different principles of
detecting a contact between the terminal and the skin of the
user, and circuitry adapted for generating an output signal
based on signals from the first and second detector
20 arrangements when the terminal touches in a predefined manner
the skin of the user, the output signal being arranged to be
employed in the control of at least one function of the
terminal.

25 27. A detector arrangement according to claim 26, wherein the
output signal is provided only if said first and second
detector arrangements both output a signal that indicates a
contact between the terminal and the skin of the user.

30 28. A method of controlling at least one function of a
terminal of a communication system, comprising the steps of:
detecting a contact between the terminal and the skin of
the user of the terminal by means of a first detector
arrangement;

detecting a contact between the terminal and the skin of the user of the terminal by means of a second detector arrangement, said second detector arrangement being different from the operational principles thereof from the first
5 detector arrangement;

based on signals from the first and second detector arrangements, generating an output signal indicating that the surface of the terminal is in contact with the skin of the user; and

10 controlling said at least one function of the terminal based on the output signal.

29. A method according to claim 30, wherein the generation of the output signal comprises steps of:

15 receiving signals from the first and second detector arrangements; and

generating the output signal only if said first and second signals indicate similar detection result.

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